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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,757	01/14/2004	Steven Maddocks	200315416-1	4254
22879 7590 10/29/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER PEYTON, TAMMARA R				
ART UNIT 2182		PAPER NUMBER		
NOTIFICATION DATE 10/29/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/757,757

Applicant(s)

MADDOCKS ET AL.

Examiner

Tammara R. Peyton

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-18, 21, 22 and 24-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-18, 21, 22 and 24-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to the filing of 08/11/2008. Claims 12-18, 21, 22, and 24-34 are pending and have been considered below:

1. In view of the Appeal Brief filed on 08/11/2008, PROSECUTION IS HEREBY REOPENED. Options are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-17, 25, 26, 28, 32, and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blumenau (6,839,747) in view of Dimitroff, (US 6,212,606).

As per claims 12, 13, 25, 32, and 34-36, Blumenau teaches an interface manager (34, Fig. 3/6) for use in a storage system, comprising: at least a first port (Fig. 3) to communicate with controllers (device controllers/disk adapter "implemented using a programmed processor or custom hardware design", 36a, 36b, 36c, 36d, col. 8, lines 62-col. 9, lines 1-16) operatively associated with storage system devices (38a-38d, col. 8, lines 62-col. 9, lines 1-16) of the storage system; at least one network port (Fig. 3 or Fig.6, obvious network port, 0 or 1, col. 6, lines 41-45) to communicate with a host (12, 14, Fig. 1c) external to the storage system; and at least one control (processor, 80, of Fig. 3) element to: receive device information from the controllers, generate at least one logical map (of the devices connected on the network and each devices share-ability) based on the received device information, and assign the at least one logical

map to the host to allow the host to access one or more of the storage system devices.

Blumenau teaches a graphical user interface (GUI) that provides a user with the ability to graphically view the availability and assignment of data storage volumes to different hosts in a storage network. The GUI also allows a user to graphically view the topology of the network, such as hosts, storage systems, and storage system disk adapters. Advantageously, the GUI permits network devices and the availability and assignment of storage volumes on a storage system to be viewed, managed, and modifies the topology.

Further, Blumenau discloses a storage network having a user input to deny and grant access permissions for the host to the data access drivers and transfer robotics (Blumenau: abstract; Column 17, Lines 44- 60) However, Blumenau does not explicitly disclose a graphical user interface displaying a logical map of the data access drivers and transfer robotics.

Nonetheless, Dimitroff discloses security and access parameters (Col. 3, Lines 34-54, Col. 4, Lines 6- 67, Col. 5, Lines 1-60) which perform the same action as a logical map, which is enabling and disabling user access of system devices. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to show the security and access parameters in the graphical user interface of Blumenau. One would readily recognize that it would

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have been motivation for Blumenau to show the security and access parameters for security and to give the user recognition of areas allowed to be modified.

As per claims 14-17, Dimitroff teaches propagating management commands (claim 14), routing and formatting transactions (claim 15), and scheduling access for the host and device controllers (claim 16 and 17) via a plurality of distinct parameters of the storage devices wherein the distinct parameters comprises a security parametric, an access parametric, an availability parametric, an ownership parametric, and a management parametric. (Col. 2, lines 57- Col. 3, Lines 34-54, Col. 4, Lines 6- 67, Col. 5, Lines 1-60)

As per claim 26, Dimitroff teaches wherein the received device information includes at least one of numbers and types of storage system devices connected to the controllers, and capacities of storage system devices in the storage system. (Col. 2, lines 57- Col. 3, Lines 34-54, Col. 4, Lines 6- 67, Col. 5, Lines 1-60)

Claims 18, 21, 22, 24, 27, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blumenau (6,839,747) in view of Dimitroff, (US 6,212,606) and in further view of and Yung et al., (US 2004/0032430A1).

As per claims 18, 21, 22, 24, 27, 28-31, 33, and 37, Blumenau-Dimitroff teaches a storage network comprising:

an automated storage system including data access drives and the interface manager to generate a logical map of the automated storage system based on aggregating configuration information for the data access drives and a device manager to communicate with the plurality of interface controllers. (note rejection above) Further, Blumenau-Dimitroff both teach an external system manager (34, Blumenau), which communicates with two or more disk adapter controllers (Dimitroff: device controllers, 112, 114, Fig.2, col. 2, lines 35- 55 operatively associated with storage system devices, 118, Fig. 1 of the storage system, Blumenau: device controllers/disk adapter "implemented using a programmed processor or custom hardware design", 36a, 36b, 36c, 36d, col. 8, lines 62-col. 9, lines 1-16 operatively associated with storage system devices 38a-38d, col. 8, lines 62-col. 9, lines 1-16 of the storage system) that gathers and manages the access data and the configuration data relating to the physical drives and logical volumes of each disk adapter controller.

However, Blumenau and Dimitroff are both silent in respect to the at least one control element includes a management application program interface (API) to generate management commands for the controllers and wherein the management API schedules access to data access drives and transfer robotics.

Nonetheless, Yung teaches a plurality of interface controllers operatively associated with the data access drives and transfer robotics (Yung, (0008, 0011-0014, and 0037); an interface manager communicatively coupled to each of the

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plurality of interface controllers, a storage system based on aggregating configuration information for the data access drives and transfer robotics; (0011-0014, 0055, and 0071, 0072) and a pipeline (0049, 0050) provided as computer readable program code in computer-readable storage at the interface manager, the pipeline including: a command router to format transactions for the interface controllers; a management application program interface (API) (0037 and 0094) to generate management commands for the plurality of interface controllers; and a device manager to communicate with the plurality of interface controllers

It would have been obvious to one of ordinary skill at the time the invention was made that to implement Yang's pipeline configuration and utilizing API generate management commands for the plurality of interface controllers; and a device manager to communicate with the plurality of interface controllers for data access drives and transfer robotics into Blumenau-Dimitroff's storage network system because doing so would provided improved communication with network devices using Yang's common user interface.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (571) 272-4157. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

/Tammara R Peyton/

Primary Examiner, Art Unit 2182

October 21, 2008

/Tariq Hafiz/

Supervisory Patent Examiner, Art Unit 2182